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# United States Patent [19]

Tang et al.

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## [54] APPARATUS AND METHOD FOR MAKING UNIFORMLY

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### Related U.S. Application Data

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[51] Int. Cl.<sup>6</sup> ... **B06B 1/20**

[52] U.S. Cl. ... **75/335, 75/345; 264/9**

[58] Field of Search ... **75/331, 332, 335, 75/345, 264/9**

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### [57] ABSTRACT

Uniform sized and shaped spheres are formed by applying a minute periodic disturbance to a low viscosity liquid material. Pressure forces the material through at least one orifice in a crucible as a steady laminar stream. The stream enters an enclosed controlled temperature solidification environment which contains at least one heat transfer medium. A charging means is applied to the stream as the stream exits the crucible and breaks into a plurality of spheres to deflect the spheres as they pass through an electric field. The enclosed controlled temperature solidification environment cools and substantially solidifies the spheres.

28 Claims, 3 Drawing Sheets

